

### **Amendments to the claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An immunogenic composition comprising:
  - (a) an immunogen comprising
    - (i) IL-12, IL-23, or a subunit or component thereof; and
    - (ii) a carrier; and
  - (b) an adjuvant comprising one or more of cholesterol; oil-in-water emulsion; oil-in-water emulsion low dose; tocopherol; liposome; QS21; and 3D-MPL.
2. (Currently amended) ~~An~~ The immunogenic composition according to claim 1 in which the immunogen comprises the P35 subunit of IL-12.
3. (Currently amended) ~~An~~ The immunogenic composition according to claim 1 in which the immunogen comprises the P40 subunit of IL-12 or IL-23.
4. (Currently amended) ~~An~~ The immunogenic composition according to claim 2 ~~or 3~~ in which the immunogen comprises at least one surface epitope of P35 or P40.
5. (Currently amended) ~~An~~ The immunogenic composition according to claim 1 in which the carrier comprises one or more of: Keyhole Limpet Haemocyanin (KLH); bovine serum albumin (BSA); tetanus toxin (TT), diphtheria toxin (DT); Domain 1 of Fragment C of TT; the translocation domain of DT; Hep B core protein; PADRE; P2; and P30.
6. (Currently amended) ~~An~~ The immunogenic composition according to ~~any preceding claim~~ claim 1 in which component (i) is coupled to the carrier by direct covalent coupling.
7. (Currently amended) ~~An~~ The immunogenic composition according to ~~any of claims 1 to 5~~ claim 1 in which component (i) is fused to the carrier.

8. (Currently amended) ~~A~~ The immunogenic composition according to ~~any preceding claim~~ claim 1 in which the adjuvant comprises liposome, 3D-MPL and QS21.

9. (Currently amended) ~~A~~ The immunogenic composition according to ~~any of claims 1 to 7~~ claim 1 in which the adjuvant comprises oil-in-water emulsion low dose; 3D-MPL and QS21.

10. (Currently amended) ~~A~~ The immunogenic composition according to ~~any of claims 1 to 7~~ claim 1 in which the adjuvant comprises oil-in-water emulsion low dose; 3D-MPL and QS21.

11. (Currently amended) ~~A~~ The immunogenic composition according to ~~any of claims 1 to 7~~ claim 1, in which the adjuvant comprises oil-in-water emulsion.

12. (Currently amended) ~~A~~ The process for the manufacture of an immunogenic composition according to ~~any of claims 1 to 11~~ claim 1 comprising mixing immunogen (a) with the adjuvant.

13. (Currently amended) ~~A~~ The vaccine composition comprising the immunogenic composition as described in ~~any of claims 1 to 12~~ claim 1 in combination with a pharmaceutically acceptable excipient, adjuvant or vehicle.

14. (Currently amended) A process for ~~the manufacture of a~~ making the vaccine composition according to claim 13 comprising mixing ~~the~~ an immunogenic composition ~~of any of claims 1 to 11~~ comprising:

(a) an immunogen comprising

(i) IL-12, IL-23, or a subunit or component thereof; and

(ii) a carrier; and

(b) an adjuvant comprising one or more of cholesterol; oil-in-water emulsion; oil-in-water emulsion low dose; tocopherol; liposome; QS21; and 3D-MPL with a pharmaceutically acceptable excipient, adjuvant or vehicle.

15. (Currently amended) ~~A~~ The method of preventing or treating a disease or disorder, in particular an autoimmune-implicated disease by

administration of an immunogenic ~~or vaccine~~ composition according to ~~any of claims 4 to 11 or 13~~ claim 1.

16. (Cancelled)

17. (Currently amended) A The method ~~or use~~ according to claim 15 ~~or 16~~, in which the ~~medicament or~~ composition is for prevention, therapy or treatment of a disease or disorder of a mammal.

18. (Currently amended) A The method ~~or use~~ according to ~~any of claims 15 to 17~~ claim 15, in which the ~~medicament or~~ composition is for prevention, therapy or treatment of a disease or disorder of a human.

19. (Currently amended) A The method ~~or use~~ according to ~~any of claims 15 to 18~~ claim 15, in which the ~~medicament or~~ composition is for prevention, therapy or treatment of a disorder chosen from the group of: multiple sclerosis; Crohn's disease; thyroiditis; ~~or~~ and rheumatoid arthritis.

20. (Original) A kit comprising an immunogen according to any preceding claim and an adjuvant comprising one or more of cholesterol; oil-in-water emulsion; oil-in-water emulsion low dose; tocopherol; liposome; QS21; and 3D-MPL.